REMARKS

The subject of the interview was alternative language for the phrases: "disposed in close proximity to one another" and "the first and second windings placed at an angle to one another." The independent claims 1 and 15 are now modified to clarify these relationships as discussed. Claim 1 is amended in response to the office action dated January 25, 2006, to include the wording: "…an inner coil wound substantially inside an outer coil, the inner coil having a first winding, the outer coil having a second winding, the first and second windings placed at substantially a 90 degree angle to one another…", and claim 15 is amended to include the wording: "…a first coil and a second coil, the first coil connected in series with the first conduction path and the second coil connected in series with the second conduction path, a bottom surface of the first coil touching a top surface of the second coil, and windings of the first coil and windings of the second coil placed at an angle of substantially 90 degrees to one another…". This wording clarifies the relationships between the coils of applicant's invention, and abates the rejections set fourth by the Examiner in the office action dated January 25, 2006.

The Examiner objected to claim 1 as being indefinite. Claim 1 has been modified to make it definite by making the angle substantially 90 degrees and winding the first coil substantially within the second coil.

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The Examiner rejected claims 1, 7, 8 and 15 under U.S.C. §102(b) as being anticipated by Stahl (5,388,021). This rejection is respectively traversed. The claims have been amended to make them definite.

Stahl does not teach: "…an inner coil wound substantially inside an outer coil, the inner coil having a first winding, the outer coil having a second winding, the first and second windings placed at substantially a 90 degree angle to one another…" (Claim 1) nor "…a first coil and a second coil, the first coil connected in series with the first conduction path and the second coil connected in series with the second conduction path, a bottom surface of the first coil touching a top surface of the second coil, and windings of the first coil and windings of the second coil placed at an angle of substantially 90 degrees to one another…" (Claim 15). Stahl does not teach any particular relationship between the windings of the individual inductors (coils) in the disclosed surge suppression circuit. Applicant's invention teaches a first coil wound inside a second coil and the windings of each are at a 90 degree angle to each other, providing improved surge protection and thermal characteristics not disclosed in the Stahl patent. The Stahl patent teaches the parallel and series connection of discrete inductors (coils). For example, column 6, line 51 states: "…across inductors 23, 24, 33 and 34…" Before the

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present invention, inductors were known in the art as either an air-wound coil or a coil wound upon a core having two leads. An example of this type of inductor is a 1uH inductor with axial leads, part number 2474-01L, from API Delevan, Inc. Stahl fails to teach every element of the applicant's claim 1 or 15 as required in 35 U.S.C. §102(b) in order to support a rejection under this statute. Therefore, the Stahl patent does not teach claims 1 and 15. Claim 7 depends from claim 1 and claim 8 depends from claim 7. Claim 1 has been shown to not be taught by Stahl; therefore, claims 7 and 8 are not taught by Stahl.

The Examiner rejected claims 1, 2, 3, 7, 8, 9, 15, 16 & 20 under U.S.C. §103(a) as being unpatentable over Stahl (US 5,388,021) in view of Grohel et al. (US 5,565,836). Claims 2 and 3 have been canceled. The rejection of claims 1, 7, 8, 9, 15, 16 and 20 is respectively traversed. The independent claims 1 and 15 have been amended to clarify the relationship between the coils of the present invention. Stahl does not teach: "…an inner coil wound substantially inside an outer coil, the inner coil having a first winding, the outer coil having a second winding, the first and second windings placed at substantially a 90 degree angle to one another…" nor "…a first coil and a second coil, the first coil connected in series with the first conduction path and the second coil connected in series with the second conduction path, a bottom surface of the first coil touching a top surface of the second coil, and windings of the

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first coil and windings of the second coil placed at an angle of substantially 90 degrees to one another…" Stahl does not teach any particular relationship between the windings of the individual inductors (coils) in the disclosed surge suppression circuit. The Stahl patent teaches the parallel and series connection of discrete inductors (coils). For example, column 6, line 51 states: "…across inductors 23, 24, 33 and 34…" Before the present invention, inductors were known in the art as either an air-wound coil or a coil wound upon a core having two leads. An example of this type of inductor is a 1uH inductor with axial leads, part number 2474-01L, from API Delevan, Inc. Grohel is limited to a single coil whose at least two windings are wound at angles to each other for nullifying magnetic field components in applications such as particle accelerators. Grohel does not suggest two coils (e.g., an inner coil and an outer coil or a top coil and a bottom coil) for use in a surge suppressor. Fig. 1, 2 and 3 of Grohel shows coils wound around a common axis or core and the windings alternate or are intermixed, not two coils, one inside or atop the other. There is no suggestion in Grohel that its device could be used for surge suppression, nor combined with in Stahl. Stahl does not teach an inner coil and an outer coil or a top coil and a bottom coil. Therefore, taking Stahl and Grohel together and considering them as a whole does not make applicant's claim 1 or Claim 15 obvious within the meaning of U.S.C. §103(a).

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Claims 7, 8, 9 depend from claim 1, and claims 16 & 20 depend from claim 15. It follows, therefore, that the rejection should be withdrawn.

The Examiner rejected claims 4, 6, 17 & 19 under U.S.C. §103(a) as being unpatentable over Stahl (US 5,388,021) in view of Akachi et al. (US 4,635,019). Claims 6, 17 and 19 have been canceled. The rejection of claim 4 is respectively traversed. Claim 1 has been amended to make it clearer. As discussed above with respect to claims 1, Stahl does not teach: "…an inner coil wound substantially inside an outer coil, the inner coil having a first winding, the outer coil having a second winding, the first and second windings placed at substantially a 90 degree angle to one another…" Stahl does not teach any particular relationship between the windings of the individual inductors (coils) in the disclosed surge suppression circuit. The Stahl patent teaches the parallel and series connection of discrete inductors (coils). For example, column 6, line 51 states: "…across inductors 23, 24, 33 and 34…" Before the present invention, inductors were known in the art as either an air-wound coil or a coil wound upon a core having two leads. An example of this type of inductor is a 1uH inductor with axial leads, part number 2474-01L, from API Delevan, Inc. Akachi is limited to a transformer (not an inductor) with multiple windings (primary and secondary). Akachi teaches away from the

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present invention having parallel windings (Fig. 8). There is no suggestion in Akachi that their device could be used in Stahl. Therefore, taking Stahl and Akachi together and considering them as a whole does not make applicant's Claim 4, which depends from claim 1, obvious within the meaning of U.S.C. §103(a). It follows that the rejection should be withdrawn.

The Examiner rejected claims 5 & 18 under U.S.C. §103(a) as being unpatentable over Newbould (US 4,092,582). Claim 5 has been canceled. The rejection of claim 18 is respectively traversed. The claim 15 has been amended to make it clearer. As discussed above with respect to claim 15, Stahl does not teach: "…a first coil and a second coil, the first coil connected in series with the first conduction path and the second coil connected in series with the second conduction path, a bottom surface of the first coil touching a top surface of the second coil, and windings of the first coil and windings of the second coil placed at an angle of substantially 90 degrees to one another…" Stahl does not teach any particular relationship between the windings of the individual inductors (coils) in the disclosed surge suppression circuit. The Stahl patent teaches the parallel and series connection of discrete inductors (coils). For example, column 6, line 51 states: "…across inductors 23, 24, 33 and 34…" Before the present invention, inductors were known in the art as either an air-wound coil or

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a coil wound upon a core having two leads. An example of this type of inductor is a 1uH inductor with axial leads, part number 2474-01L, from API Delevan, Inc. Newbould is limited to a transformer (not an inductor) with multiple windings (primary and secondary). Newbould teaches away from the present invention having parallel windings (Fig. 3 and Fig. 6). There is no suggestion in Newbould that its device could be used in Stahl. Therefore, taking Stahl and Newbould together and considering them as a whole does not make applicant's Claim 18, which depends from claim 15, obvious within the meaning of U.S.C. §103(a). It follows that the rejection should be withdrawn.

The Examiner rejected claims 10, 11, 12, 13, 14, 21, 22 & 23 under U.S.C. §103(a) as being unpatentable over Stahl (US 5,388,021) in view of Grohel et al. (US 5,565,836 and Crosby et al. (US 4,876,713). The rejection of claims 10, 11, 12, 13, 14, 21, 22 and 23 is respectively traversed. The independent claims 1 and 15 have been amended to clarify the relationship between the coils of applicant's invention. Stahl does not teach: "…an inner coil wound substantially inside an outer coil, the inner coil having a first winding, the outer coil having a second winding, the first and second windings placed at substantially a 90 degree angle to one another…" (Claim 1) nor "…a first coil and a second coil, the first coil connected in series with the first conduction path and the second coil connected in series

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with the second conduction path, a bottom surface of the first coil touching a top surface of the second coil, and windings of the first coil and windings of the second coil placed at an angle of substantially 90 degrees to one another…" (Claim 15). Stahl does not teach any particular relationship between the windings of the individual inductors (coils) in the disclosed surge suppression circuit. The Stahl patent teaches the parallel and series connection of discrete inductors (coils). For example, column 6, line 51 states: "…across inductors 23, 24, 33 and 34…" Before applicant's invention, inductors were known in the art as either an air-wound coil or a coil wound upon a core having two leads. An example of this type of inductor is a 1uH inductor with axial leads, part number 2474-01L, from API Delevan, Inc. Grohel is limited to a single coil whose at least two windings are wound at angles to each other for nullifying magnetic field components in applications such as particle accelerators. Grohel does not suggest two coils (e.g., an inner coil and an outer coil or a top coil and a bottom coil) for use in a surge suppressor. FIGS. 1, 2 and 3 of Grohel shows coils wound around a common axis or core, and the windings alternate or are intermixed, not two coils, one inside or atop the other. There is no suggestion in Grohel that its device could be used for surge suppression nor combined with in Stahl. Stahl does not teach an inner coil and an outer coil or a top coil and a bottom coil. Crosby, too, does not teach the

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relationships between the coils of the applicant's invention, having separate and discrete inductors. Crosby and Stahl teach away from the applicant's invention by having separate and discrete inductors. Therefore, taking Stahl and Grohel and Crosby together and considering them as a whole does not make applicant's claims 1 or 15 obvious within the meaning of U.S.C. §103(a). Claims 10, 11, 12, 13 and 14 depend from claim 1 and claims 21, 22 and 23 depend from claim 15. It follows that the rejection should be withdrawn.

In view of all the above, it is believed that Claims 1, 4, 7-16, 18, and 20-25 are now in condition for allowance. Such action is earnestly solicited.

Respectfully submitted,

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